

LBNL ENVIRONMENTAL MANAGEMENT PROGRAM (EMP)

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| EMP Coordinator(s) and Organization(s): Blair Horst, Facilities | | Revision Date: 8/28/2008 | EMP No.: 07-01B | |
| Aspect: Energy use | Objective: Implement sustainable practices for energy efficiency. | Target: Reduce energy intensity by 3% annually or 30% by 2015 relative to the baseline of energy use in fiscal year (FY) 2003. | | |
| Category: <div style="display: flex; justify-content: space-around; align-items: center;"> <input checked="" type="checkbox"/> Improve <input type="checkbox"/> Control <input type="checkbox"/> Study (short term) </div> | | | | |
| Strategy: Determine and report FY03 baseline and annual energy use, costs and savings. Achieve 30% energy use intensity savings by the end of FY 15. Conduct energy audits on an average of 25% of the facilities square footage yearly. Install advanced electric metering devices. Implement energy savings projects. Install on-site renewable energy or submit waiver request. Practice sustainable design. | | | | |
| Actions to Achieve Objective: | | | | |
| <i>Action</i> | | <i>Lead</i> | <i>Due Date</i> | |
| | | <i>Completion Date</i> | | |
| 1. Determine FY03 energy use using FIMS and the Energy Management System version 4 (EMS4) Web - Database. | | M. Dong | 7/15/07 | 7/15/07 |
| 2. Complete Advanced Electronic Metering Plan. | | M. Dong | 9/30/07 | 6/28/07 |
| 3. Install electronic metering devices identified in Metering Plan for FY07. | | M. Dong | 9/30/07 | 9/30/07 |
| 4. Conduct FY07 energy audits using Energy Service Contractor (ESCO). | | M. Dong | 9/30/07 | 9/30/07 |
| 5. Determine FY07 energy use and report. | | M. Dong | 12/30/07 | 12/05/07 |
| 6. Submit Executable Plan Draft per DOE O 430.2B to the Berkeley Site Office. | | B Horst | 9/30/08 | |
| 7. Report energy use intensity using FIMS and the EMS4 Web - Database | | B Horst | 12/31/08 | |
| 8. Conduct FY08 energy audits via Energy Savings Performance Contract (ESPC) Detailed Energy Survey (DES) per current scheduled Delivery Order contract execution. | | B Horst | 2/24/09 | |
| 9. Begin ESPC Phase 1 construction if in the best interest of LBNL and the government. | | B Horst | 2/24/09 | |
| 10. Submit draft update of Executable Plan per DOE O 430.2B to the Berkeley Site Office. | | B Horst | 9/30/09 | |
| 11. Perform Executable Plan during FY 09 | | B Horst | 12/31/09 | |
| 12. Update energy audits for FY 2009 via ESPC DES Phase 2 or by other means. | | B Horst | 12/31/09 | |
| 13. Report energy use intensity using FIMS and the EMS4 Web - Database | | B Horst | 12/31/09 | |
| 14. Complete ESPC Phase 1 construction per current ESPC project schedule (changes possible). | | B Horst | 11/17/10 | |
| 15. Repeat on an annual cycle. | | B Horst | | |
| Metrics (Environmental Performance Indicators): | | | | |
| 1. Electrical use in Mega Watt-Hours (MWH) | | 3. Building area in square feet | | |
| 2. Natural gas use in thousand cubic feet | | 4. Energy intensity in electrical or natural use per square foot of building area | | |
| EMP Closure Summary: | | | | |

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NOTES / INSTRUCTIONS

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| EMP Coordinator(s) | Name the person(s) responsible for the accomplishment of the EMP; i.e. overseeing the workplan, monitoring and reporting on progress, requesting changes to the workplan as appropriate. |
| Organization(s) | Name the organization(s) primarily impacted or affected by this EMP. If only one department of an organization is affected, note that department. |
| Revision Date | Date that identifies when EMPs are modified or updated. |
| EMP Number | Number will be assigned by the EMS Manager. |
| Aspect | The significant aspect (e.g. energy use, chemical usage, etc.). |
| Objective | Focusing on the impacts related to this significant aspect, state the goal. What is it you want to achieve? Use action words – reduce, improve, control, etc. |
| Target | State “how much and by when.” The target is the performance element and should be quantitative and measurable. |
| Category | The categories identify and help to focus the EMP. The definitions of these categories are: <ul style="list-style-type: none"> • Improve – improve the performance in this area • Control – current environmental controls are sufficient, but EMP objective is to maintain and strengthen the level of control • Study – the issue or area has been designated as significant, but historic or baseline data must be studied and compiled to determine the direction of future action |
| Strategy | In this section, describe the overall approach to the problem. Some of the questions to be addressed include: <ul style="list-style-type: none"> • How much has or has not been already been accomplished in this area? • Why is this important? Are there relevant drivers (regulations, directives, public pressure, etc.)? • What are the impacts to be addressed in this EMP? |
| Actions | List the specific actions to be taken to achieve the objective and target. List the action and identify the responsible parties and dates by which the actions should be accomplished. |
| Metrics | Metrics are the Environmental Performance Indicators, how you measure the accomplishments. List the specific, quantifiable measurements or metrics (percent of employees trained, kilowatt hours saved, tons of waste diverted, gallons of material, etc.). |
| EMP Closure Summary | After the EMP and all actions within the EMP are complete, a concise description of the EMP's ability to achieve its objective and target should be provided. |